

REMARKS

Claims 1 is currently pending. Claim 1 is amended, and none of the amendments constitute new matter. Claim 2 was previously canceled. The Examiner has rejected claim 1 under 35 U.S.C. § 112 as failing to comply with the written description requirement. In particular, the Office Action alleges that the phrases “at most 3 μm ” and “a single restriction mechanism” are not supported by the disclosure. The rejection of claim 1 based on the phrase “a single restriction mechanism” is rendered moot in light of the current amendment to claim 1.

The present invention relates to a hydrostatic gas bearing of an orifice type possessing a single or multi-restriction mechanism for the creation of a squeezing effect based on adiabatic expansion. Specifically, the present invention is directed to a bearing which can be easily machined with high accuracy without being scarred by contact. The bearing precludes a significant change in size when a change in temperature is realized. The unique cross T-shape design of the restriction mechanism, as well as the bearing clearance, the use of ceramics with a low coefficient of thermal expansion (*i.e.*, silicon nitride and Sialon), and improved damping are factors that distinguish the claimed invention from the prior art.

Applicants respectfully disagree with the Examiner’s objection to the use of the phrase “at most 3 μm .” The fact that the dimension of the clearance does not exceed 3 μm is supported by the specification. Paragraph [0026] of the specification states: “As a bearing used maintaining a bearing clearance of not larger than 3 μm , in particular, silicon nitride or Sialon having a coefficient of thermal expansion at room temperature of 1.2 ppm/K or cordierite-based zero-expansion ceramics having a coefficient of thermal expansion of not larger than 0.1 ppm/K can be used.” As such, the upper limit of the bearing clearance as recited in amended claim 1 is

supported by the specification and thus does not constitute new matter. Applicants believe that the claim is in condition for allowance.

CONCLUSION

Applicants respectfully seek allowance of claim 1 as amended herein. Applicants believe that no fee is due in conjunction with the submission of this paper. The Commissioner is hereby authorized to charge payment of any unanticipated fee or credit any overpayment to Deposit Account No. 02-4377.

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By:

Respectfully submitted,
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